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ABSTRACT

A series of studies conducted in the late 1980s suggested that American adolescents lack adequate knowledge in geography, history, science, and current events. This paper examines motivational predictors of students' knowledge of current events and AIDS. Researchers surveyed 579 middle school students from 4 middle schools, and 1,548 high school students from 9 high schools. Three research questions were investigated: (1) What variables predict adolescents' knowledge about current events and AIDS? (2) Are there developmental differences between early versus late adolescents in current events and AIDS knowledge? and (3) Are motivational goal orientations related to knowledge about current events and AIDS? Results revealed different patterns for the two student groups. The strongest predictors of current events knowledge for early adolescents appeared to be grade point average (GPA) and goal orientations; however, for older adolescents, thinking about social issues, gender, socioeconomic status, and plans after high school also predicted such knowledge. For AIDS knowledge, age offered the strongest predictor for the younger samples, with GPA and subject mastery goals being moderate predictors. Gender and goals emerged as additional predictors for high school students, with age dropping out as a significant predictor. Four tables and three figures highlight the statistical findings. (RJM)

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Adolescents' Motivational Goal Orientations and Knowledge About AIDS and Current Events

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Abstract

The present study examines predictors of current events and AIDS knowledge in middle and high school students. Different patterns of prediction emerge for the two samples. The strongest predictors of current events knowledge for middle school students appear to be GPA and goal orientations; however, for high school students, thinking about social issues, gender, socioeconomic status, and plans after high school also predict such knowledge. For AIDS knowledge, age appears to be the strongest predictor for the middle school sample, with GPA and mastery goals also being predictors; gender and goals emerge as additional predictors for high school students, while age is no longer a significant predictor.

Adolescents' Motivational Goal Orientations and Knowledge about AIDS and Current Events

INTRODUCTION

A series of studies conducted in the late 1980s suggests that American adolescents are lacking in their knowledge of geography, history, science, and current events (NAEP 1990a; NAEP, 1990b; NAEP, 1990c; Gallup, 1988; Ravitch & Finn, 1987; Stevenson & Stigler, 1992). It is particularly challenging to assess adolescents' motivation toward learning current events, since few states have specific curricula designed to teach current events in a coherent, consistent manner . The present research examines motivational predictors of students' knowledge of recent current events and AIDS.

Motivation and The News

The relationship between students' achievement goals and motivation has received much attention (Ames & Archer, 1988; Dweck & Leggett, 1988; Maehr & Pintrich, 1991). Two types of goals have been identified: ***mastery goals*** are indicative of students who engage in academic tasks for their own sake, rather than for some type of extrinsic reward; in contrast, students adopt ***performance goals*** when they engage in tasks in order to receive some type of extrinsic reward, such as high grades.

Research has not linked motivational variables to current events knowledge in a consistent manner (Robinson & Levy, 1986). Blumenfeld (1992) and Pintrich (1992) suggest that research on goals should take on new directions and challenges. The present study moves goal research in a new direction by examining the effects of students' goal orientations on knowledge about world events and AIDS. We hypothesize that students who adopt value news-specific mastery-orientations will know more than students who adopt performance-goals.

PROCEDURE

The sample includes 579 middle school students from four middle schools, and 1548 high school students from 9 high schools. The sample was selected using the same criteria utilized in the NAEP assessments (1990a, b, c), and approximates a nationally representative sample. Three classes in each middle school (grades 6 - 8) and four classes in each high school (grades 9-12) completed a 29 question current events and AIDS knowledge quiz. Students also completed questionnaires assessing their goal orientations toward academics and toward knowledge of current events. Scales were formed from these surveys.[1]

OVERALL RESEARCH QUESTIONS

1. What variables predict adolescents' knowledge about current events and AIDS?
2. Are there developmental differences between early verses late adolescents in current events and AIDS knowledge?
3. Are motivational goal orientations related to knowledge about current events and AIDS?

RESULTS

Table 1 contains a general description of the middle and high school samples.

Insert Table 1 About Here

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[1]Items for scales and alpha values are presented in Appendix 1.

Figures 1, 2, and 3 present the bivariate relationships between news goal orientations and GPA, gender, and current events knowledge:

Insert Figures 1, 2, & 3 About Here

Figure 1 presents the relationship between the news "mastery" and "performance" scales and grade point average. There is no relationship between performance goal orientation and current events knowledge, although there is a slight relationship between mastery orientation and current events knowledge ($F=2.59$, $p<.05$); however, this small relationship is most probably due to the large sample size.

Figure 2 presents the relationships between goal orientation and gender. There is no significant relationship -- goal orientation and gender are independent of each other. Figure 3 displays a powerful interaction between goal orientation and current events knowledge. Both main effects for news mastery orientation ($F=33.16$, $p<.001$) and news performance orientation ($F=15.47$, $p<.001$) are significant, as is the interaction between mastery and performance ($F=3.84$, $p<.01$). Thus the higher a student is on mastery orientation, the more he or she knows about current events; conversely, the higher a student is on performance orientation, the less s/he knows about current events.

Table 2 presents correlations for the middle and high school samples:

Insert Table 2 About Here

Several important differences emerge between the middle and high school samples. Current events knowledge is related to gender, with males knowing more current events

than females for the high school samples (r=-.16, p<.001), but with no significant gender differences for the middle school samples. Current events also is related to GPA, with students higher achieving students knowing more current events than lower achievers. However, the relationships are weaker at the middle school level (r=.18, p<.001) that at the high school level (r=.25, p<.001). The relationships between grade level in school is stronger for middle school students (r=.24, p<.001) than for high school students (r=.06, p<.001).

The news task focus scale is negatively related to the news ability focus scale (r=-.27, p<.001 (Middle School), r=-.45, p<.001 (High School)). The news task-focus scale has a very low significant correlation with GPA (r=.09, p<.001 (Middle School); r=.06, p<.001 (High School)), and the news ability-focus scale is uncorrelated with GPA. However, the general task-focus scale is correlated with GPA (r=.18, p<.001 (Middle School); r=.22, p<.001 (High School)). The general ability-focus scale is correlated with GPA, but only for the high school sample (r=-.11, p<.001).

The news-seeking behavior scale, which is a composite measure of TV news, radio, and newspaper usage, is positively related to the news task-focus measure for the middle (r=.27, p<.001) and high school samples (r=.21, p<.001), and negatively related to the news ability-focus scales for both samples (r=-.12, p<.001 (Middle School); r=-.15, p<.001 (High School)).

Table 3 presents the results of regression analyses for the middle and high school samples predicting to the test of current events knowledge:

Insert Table 3 About Here

Significant predictors for middle school students are GPA, general and news performance orientations, and news mastery orientation, while significant predictors for

high school students are thinking about social problems, GPA, news performance and mastery orientations. Gender is a significant predictor for the high school sample, with males scoring higher than females. General performance orientation is a significant predictor only for the middle school sample.

Table 4 presents the results of regression analyses for the middle and high school samples predicting to the test of AIDS knowledge:

Insert Table 4 About Here

The only significant predictors for middle school students grade level, GPA, and general mastery orientation. The significant predictors for high school students are gender, GPA, general performance orientation, news-specific mastery orientation, and plans after high school. Gender is a significant predictor for the high school sample, with females knowing more about AIDS than males. Grade level is a powerful predictor of AIDS knowledge for young adolescents, but is unrelated to AIDS knowledge for older students.

DISCUSSION

The present study suggests that social-cognitive motivational goals (Maehr & Pintrich, 1991) are powerful predictors of what students know about the world that they live in. Although the present research demonstrates that students with higher levels of academic achievement know more about current events than other students, several other non-traditional variables are significant predictors as well.

One important finding is that gender is not a significant predictor of current events knowledge for early adolescents, but it is a powerful predictor for older adolescents. In

addition, males know more "general" current events than females, but females know more about AIDS than males.

Another intriguing finding is that grade level in school is the most powerful predictor of knowledge about AIDS for young adolescents, but is not a significant predictor for older adolescents. However, older students who plan to attend a four year college know significantly more about AIDS than those who do not have such educational aspirations.

The general and news-specific goal orientation measures are important predictors of current events and AIDS knowledge. A general performance orientation is predictive of middle school students' current events knowledge, and high school students' AIDS knowledge in a positive direction -- the more performance or ability-focused adolescents know more about these issues. Yet the news-specific performance orientation measure behaves in the reverse pattern -- this measure is negatively related to current events knowledge for both samples (it is unrelated to AIDS knowledge). The general mastery orientation measure is a predictor of AIDS knowledge in middle school students (but not in high school students)-- the more mastery oriented students know more about AIDS. Finally, adopting a news-specific mastery orientation is a very powerful predictor of middle and high school students' current events knowledge, and high school students' AIDS knowledge.

Questions emerge as to why the patterns of predictor variables differ for the two samples, as well as for the general test of current events and the AIDS sub-test. First, why are there such noteworthy age differences? Various researchers (e.g., Maehr & Pintrich, 1991; Eccles, Midgley & Adler, 1984) suggest that achievement motivation decreases as students get older, particularly as students enter adolescence. Eccles and her colleagues (e.g., Eccles et al., 1984; Eccles, 1983; Eccles & Wigfield, in press) suggest that the "value" component of motivation, particularly in an expectancy-value framework, is extremely important in understanding students' motivation toward learning particular academic concepts and content. Since the "news" is not treated as a distinct area of study in

most curricula, but rather, is treated as a part of a social studies class (or, in other ways, as part of other courses, including science and foreign language), future research should examine the specific reasons why students may value or not value learning the news in particular, studies should examine why some aspects of the news, such as AIDS knowledge, show different patterns of cognitive and motivational predictors. Since "AIDS" is a powerful force in the lives of many teenagers, and many adolescents may in fact know people who have been affected by the virus, it is in fact likely that the differing patterns of prediction found in our analyses may be related to how much students value knowing about certain topics.

In summary, different patterns emerge for the two samples. The strongest predictors of current events knowledge for early adolescents appear to be GPA and goal orientations; however, for older adolescents, thinking about social issues, gender, socioeconomic status, and plans after high school also predict such knowledge. For AIDS knowledge, age appears to be the strongest predictor for the younger sample, with GPA and mastery goals also being predictors; gender and goals emerge as additional predictors for high school students, while age is no longer a significant predictor.

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GOAL ORIENTATION SCALES

(adapted from Maehr & Midgley, 1991)

News Mastery

Understanding the news -- what's happening in the world -- is important to me.

It's fun to figure out why things (wars, elections, protests, and other events) are happening around the world.

I try to understand how history has shaped the events of today.

I try to learn more about things I hear about in the news.

When I'm watching or reading the news I try to figure out why things are happening.

When I listen to or watch the news, I take the time to figure out what's important.

I pay attention to what is happening in the news because I enjoy it.

News Performance

I read about or watch the news only if I am going to be tested on it.

Listening to the news is boring.

I read about or watch the news only when a teacher requires it.

I like the news when it is easy to understand.

General Mastery

I like very challenging work in school better than easy work.

I like to learn new things even if it means I have to work very hard.

Understanding my school work is more important to me than the grade I get.

I like school work that I will learn from even if I make a lot of mistakes.

General Performance

I like school work that I can finish quickly.

I'm concerned about how well I do compared to other students in my classes.

I like school work best when it is easy to get the right answers.

I don't care if I understand my school work as long as I get the right answer.

Table 1: Descriptive Statistics for the Middle and High School Samples

	MIDDLE SCHOOL	HIGH SCHOOL
Current Events Knowledge (Max=29)	10.8 (std. dev. = 4.41)	15.7 (std. dev = 5.16)
AIDS Knowledge Test	2.46 (std. dev. = 1.35)	3.23 (std. dev = 1.09)
GPA (5 point scale)	2.95 (std. dev. =1.09)	2.54 (std. dev = 1.09)
News Mastery Orientation	3.13 (std. dev. =0.84)	3.19 (std. dev = 0.82)
News Performance Orientation	2.20 (std. dev = 0.98)	2.07 (std. dev = 0.93)
General Mastery Orientation	3.22 (std. dev = 0.83)	3.27 (std. dev = 0.77)
General Performance Orientation	3.53 (std. dev = 1.18)	3.55 (std. dev = 1.02)

Figure 1: Bivariate Relationship Between Goal Orientation and Grade Point Average:

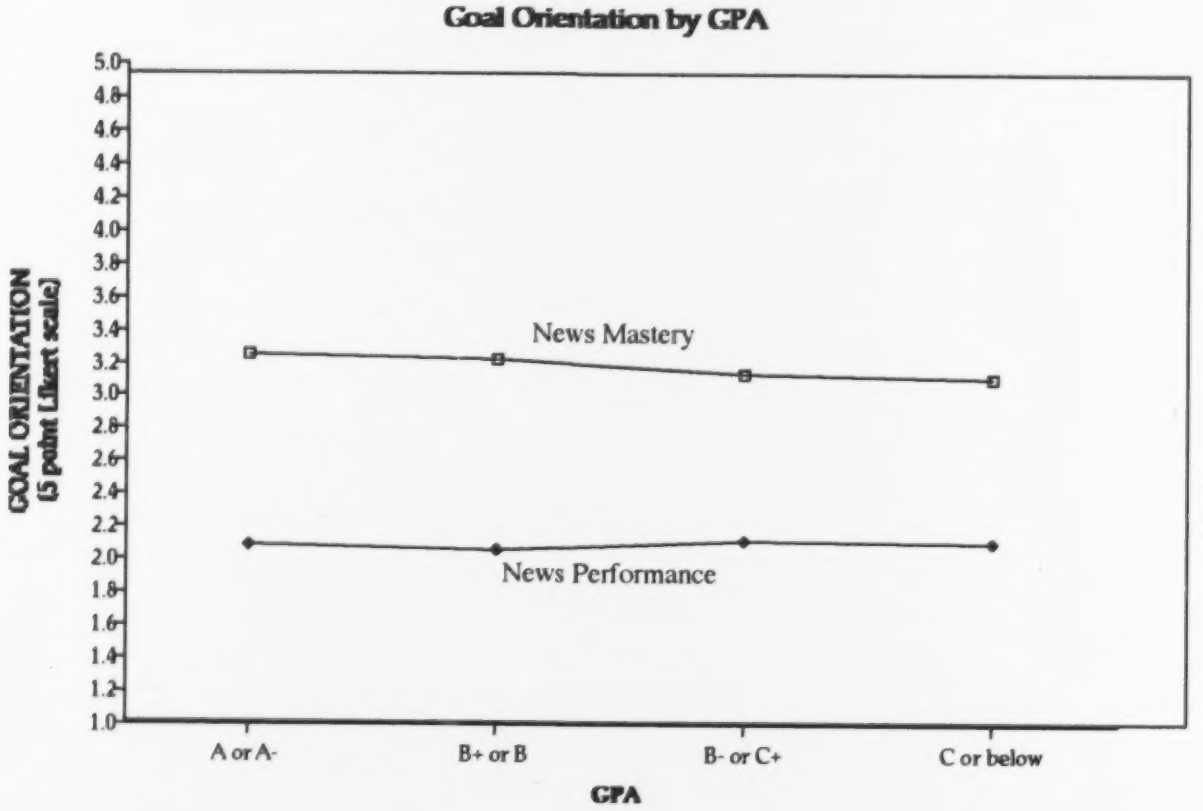

Figure 2: Bivariate Relationship Between Goal Orientation and Gender:

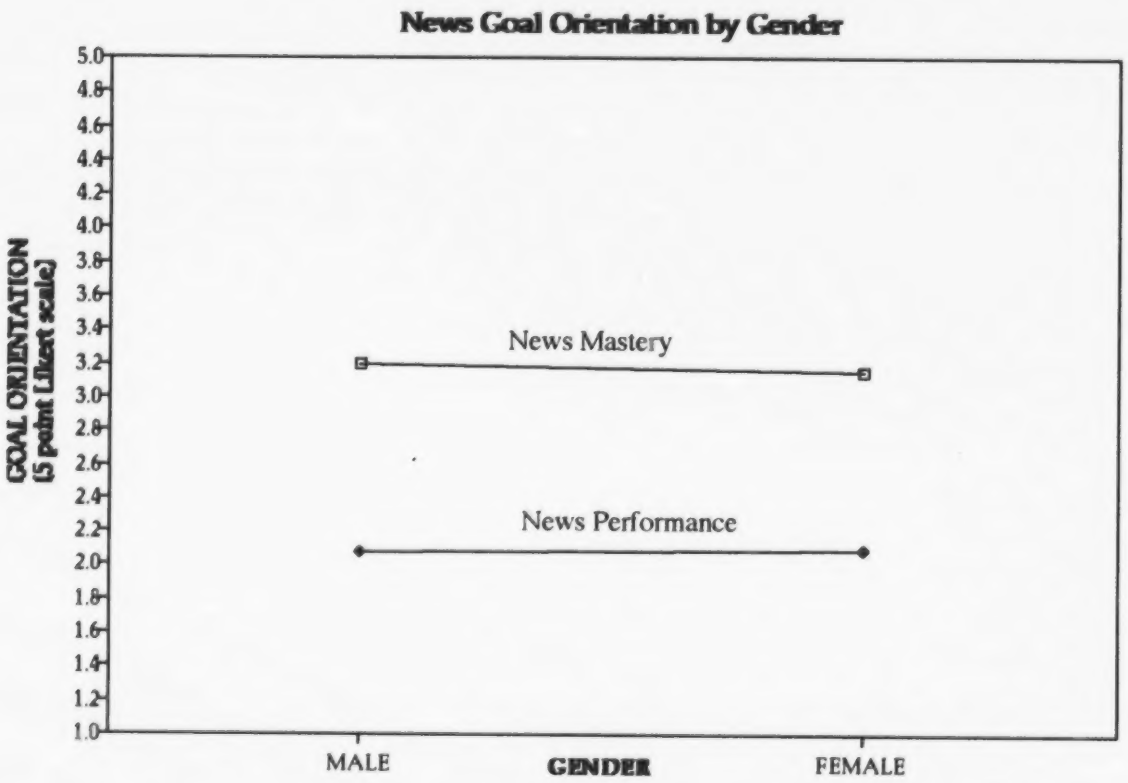

Figure 3: Relationship Between Goal Orientation and Current Events Knowledge:

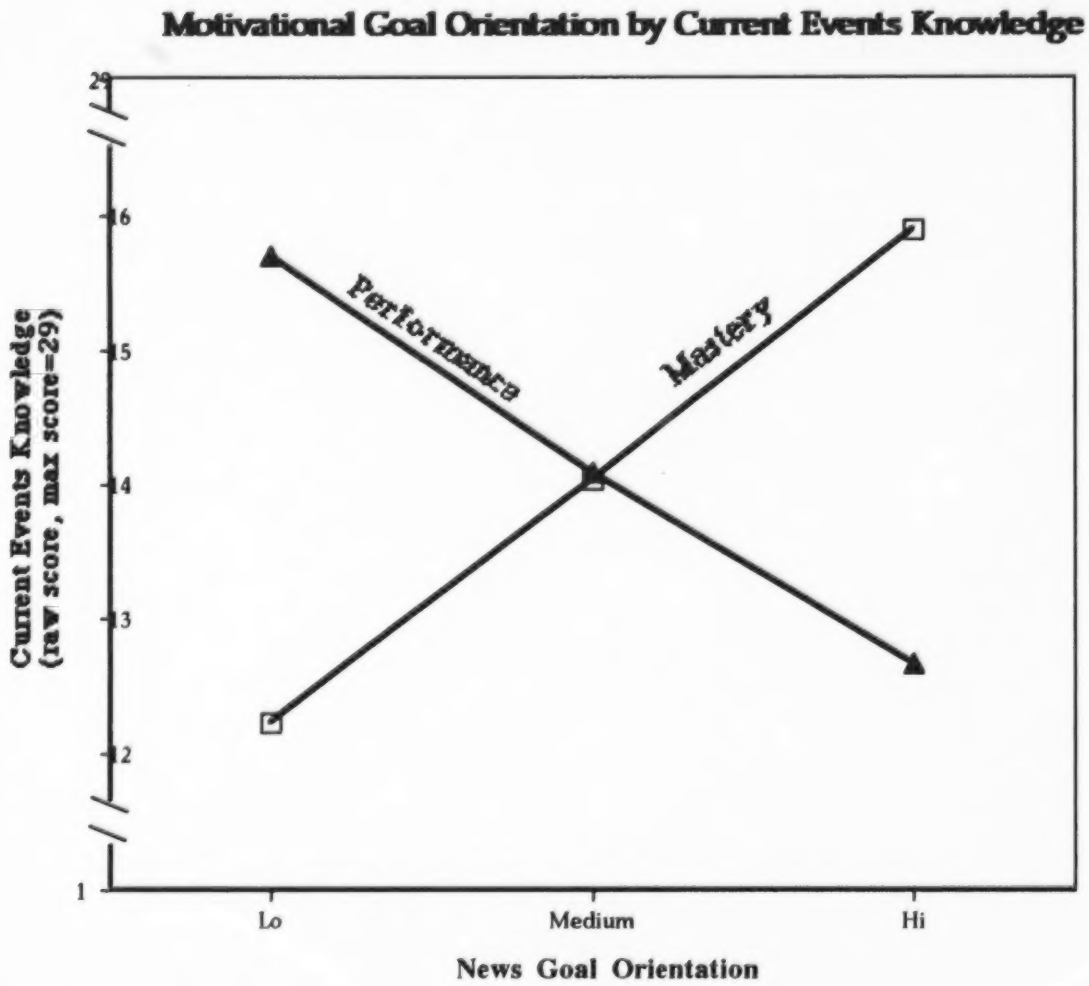

Table 2: Zero-Order Correlations for Middle and High School Samples

Middle School is above
High School is below

	Gender	GPA	Grade	News HW	Plans After HS	News Task Focus	News Ability Focus	News Seeking Behavior	General Task Focus	General Ability Focus	Current Events Score
Gender	1.00 1.00										
GPA	-.068 -.094**	1.00 1.00									
Grade	.067 -.003	-.092* .014	1.00 1.00								
News HW	-.056 -.002	.135** .023	.070 -.115**	1.00 1.00							
Plans After HS	-.057 -.120**	-.217** -.244**	.020 -.050*	.007 .093**	1.00 1.00						
News Task Focus	.021 -.061*	.093* .059*	.007 .073**	-.157** -.117**	-.172** -.113**	1.00 1.00					
News Ability Focus	-.033 .051*	-.022 -.004	-.178** -.031	-.012 .031	.051 .022	-.274** -.450**	1.00 1.00				
News Seeking Behavior	.023 -.002	.020 .057	-.003 .073*	-.080 -.072*	-.133** -.034	.267** .209**	-.118** -.153**	1.00 1.00			
General Task Focus	.075 .101**	.181** .220**	-.021 .001	-.077 -.083**	-.168** -.198**	.554** .479**	-.240** -.223**	.177** .097**	1.00 1.00		
General Ability Focus	.076 -.049	.052 -.112**	.037 .005	.001 .046	-.011 .094**	.083*- .111**	.168** .137**	-.011 -.103**	-.059 -.238**	1.00 1.00	
Current Events Score	-.035 -.161**	.178** .254**	.241** .063*	.082* -.068**	-.104* -.175**	.185** .327**	-.199* -.218***	.125** .137**	.186** .204**	.030 .016	1.00 1.00

Table 3: Regression Analyses for Middle and High School Samples, Predicting to Current Events Knowledge:

	MIDDLE SCHOOL		HIGH SCHOOL	
Predictor	**B**	**BETA**	**B**	**BETA**
How often do you think about social problems of the world?	**0.290**	**0.063**	**0.611****	**0.101*****
Gender	**-0.346**	**-0.039**	**-1.556*****	**-0.162*****
Father's Education	**-0.081**	**-0.018**	**0.444****	**0.089****
Grade Point Average	**0.920*****	**0.209*****	**0.906*****	**0.190*****
General Performance Orientation	**0.518****	**0.128****	**0.233**	**0.047**
News Specific Performance Orientation	**-0.694****	**-0.143****	**-0.544****	**-0.096****
News Specific Mastery Orientation	**0.787****	**0.137****	**1.066*****	**0.169*****
Constant	**10.936**	**---**	**14.247**	**---**
R-Squared	**0.129*****		**0.163*****	
Number in Sample	**376**		**957**	

$^{\dagger}p<.07$ $^{*}p<.05$ $^{**}p<.01$ $^{***}p<.001$

Table 4: Regression Analyses for Middle and High School Samples, Predicting to AIDS Knowledge:

	MIDDLE SCHOOL		HIGH SCHOOL	
Predictor	**B**	**BETA**	**B**	**BETA**
Gender†	.136	.054	.215***	.102***
Grade Level	.445***	.236***	.009	.009
Grade Point Average	.162**	.161**	.059***	.059***
General Performance Orientation	.035	.031	.119***	.111***
General Mastery Orientation	.185*	.115*	.070	.090
News Specific Mastery Orientation	.037	.023	.140***	.106***
Plans After High School	-.031	-.011	.249***	.112***
Constant	0.934	—	1.535	—
R-Squared	0.10***		0.06***	
Number in Sample	579		1548	

† Dummy-coded, 1=male, 2=female * p<.05 ** p<.01 ***p<.001